



# Election Turnout and Wait Times

## 2018 General Election

Montgomery County Board of Elections

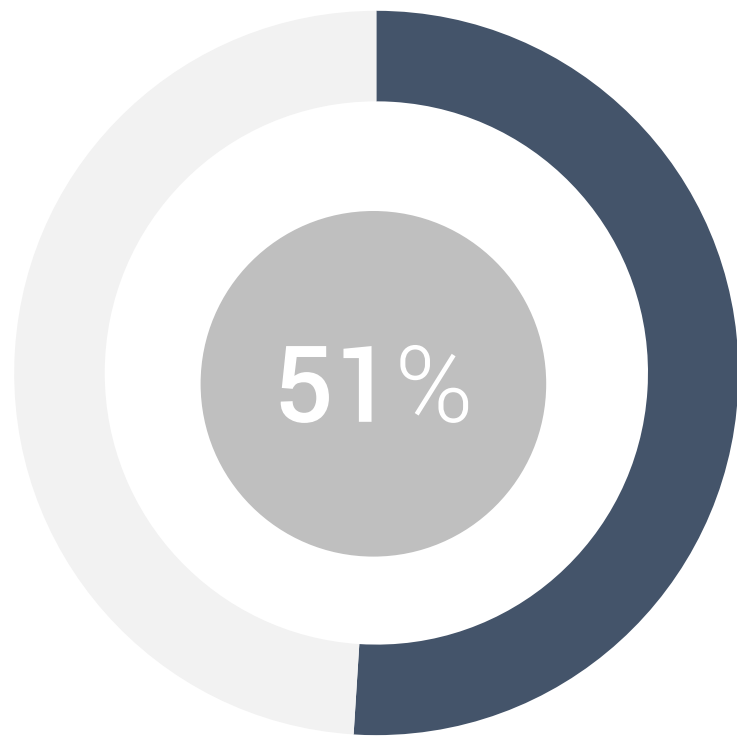
An aerial photograph of a city, likely Denver, showing a mix of residential neighborhoods, commercial buildings, and a major highway (I-26) running diagonally. A white banner with a jagged, torn-edge effect is superimposed over the center of the image, containing the title and subtitle.

# **ELECTION TURNOUT**

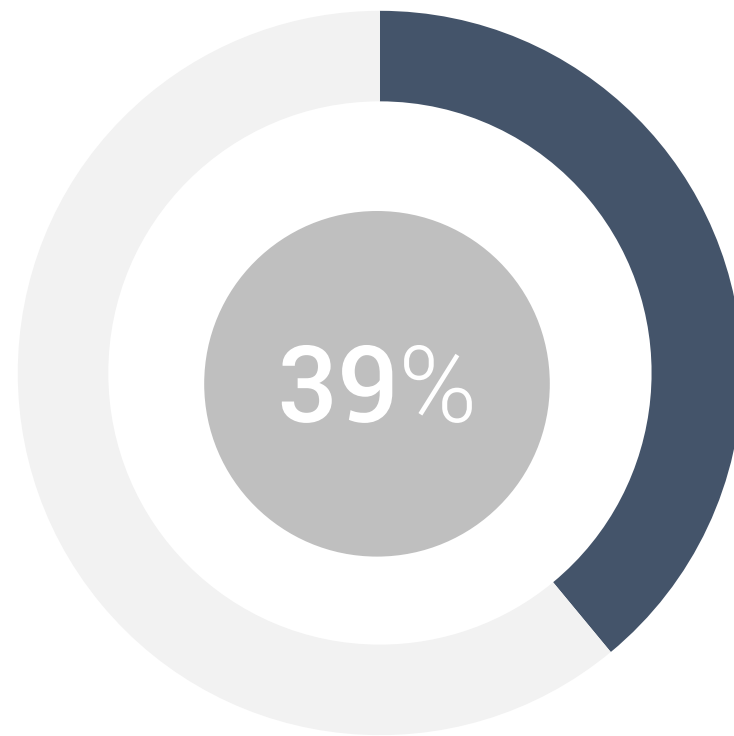
2018 GENERAL ELECTION

*Overall turnout was up significantly*

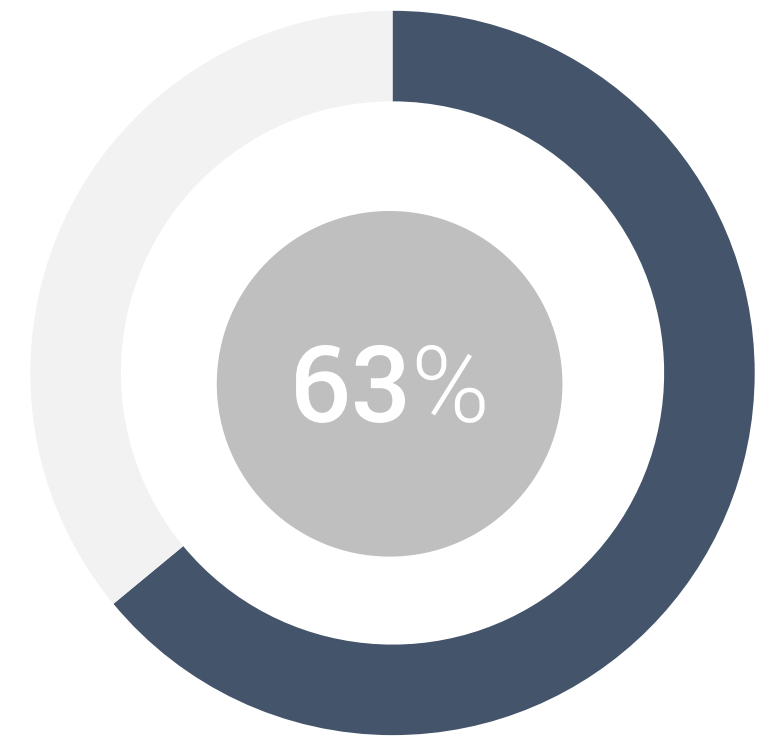
**More than 410,000 voters (63%) was a large increase from recent, similar elections**



**2010 General**

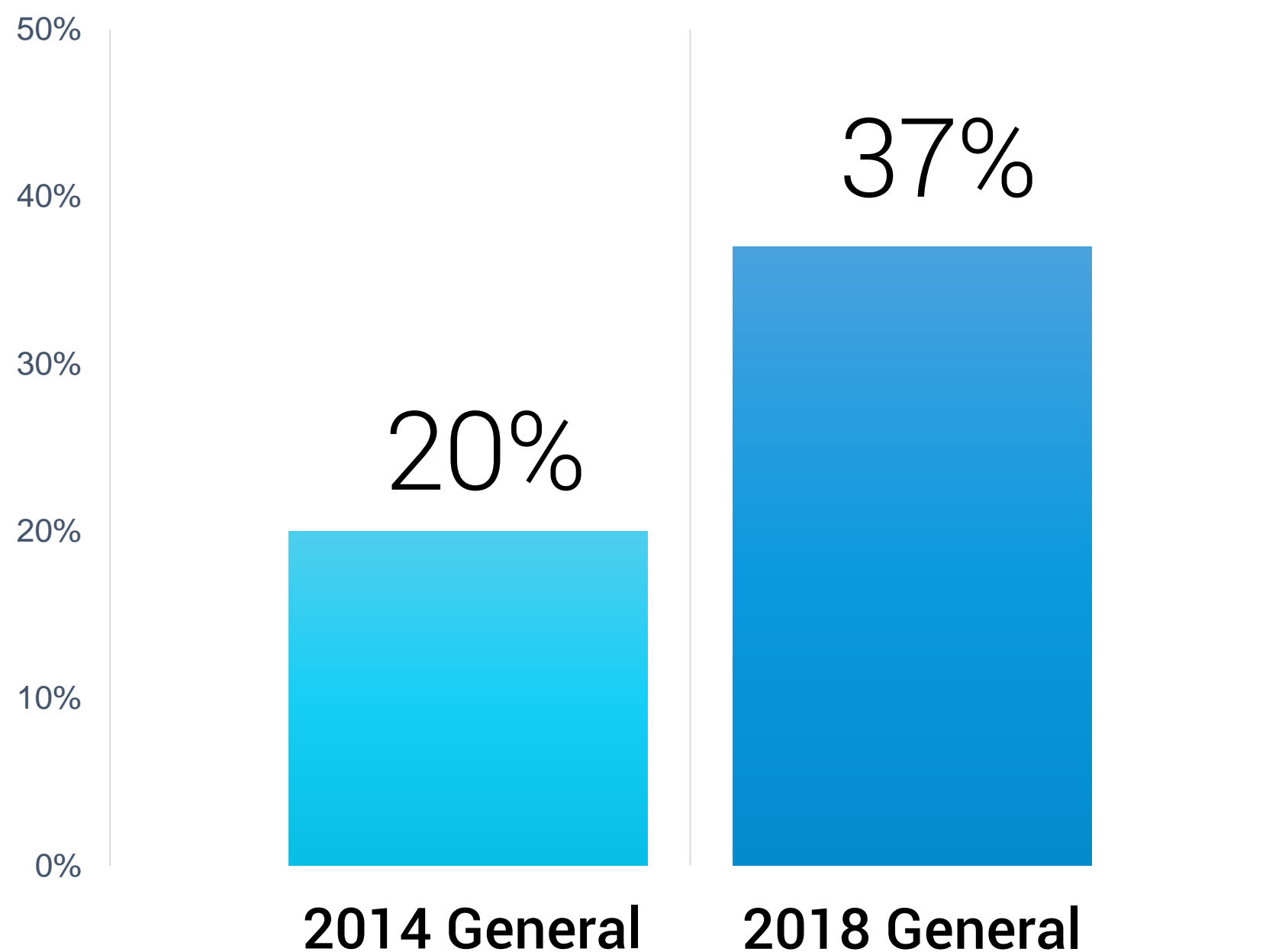


**2014 General**



**2018 General**

# *More voters are voting before Election Day*



**28% of voters casting ballots used early voting**

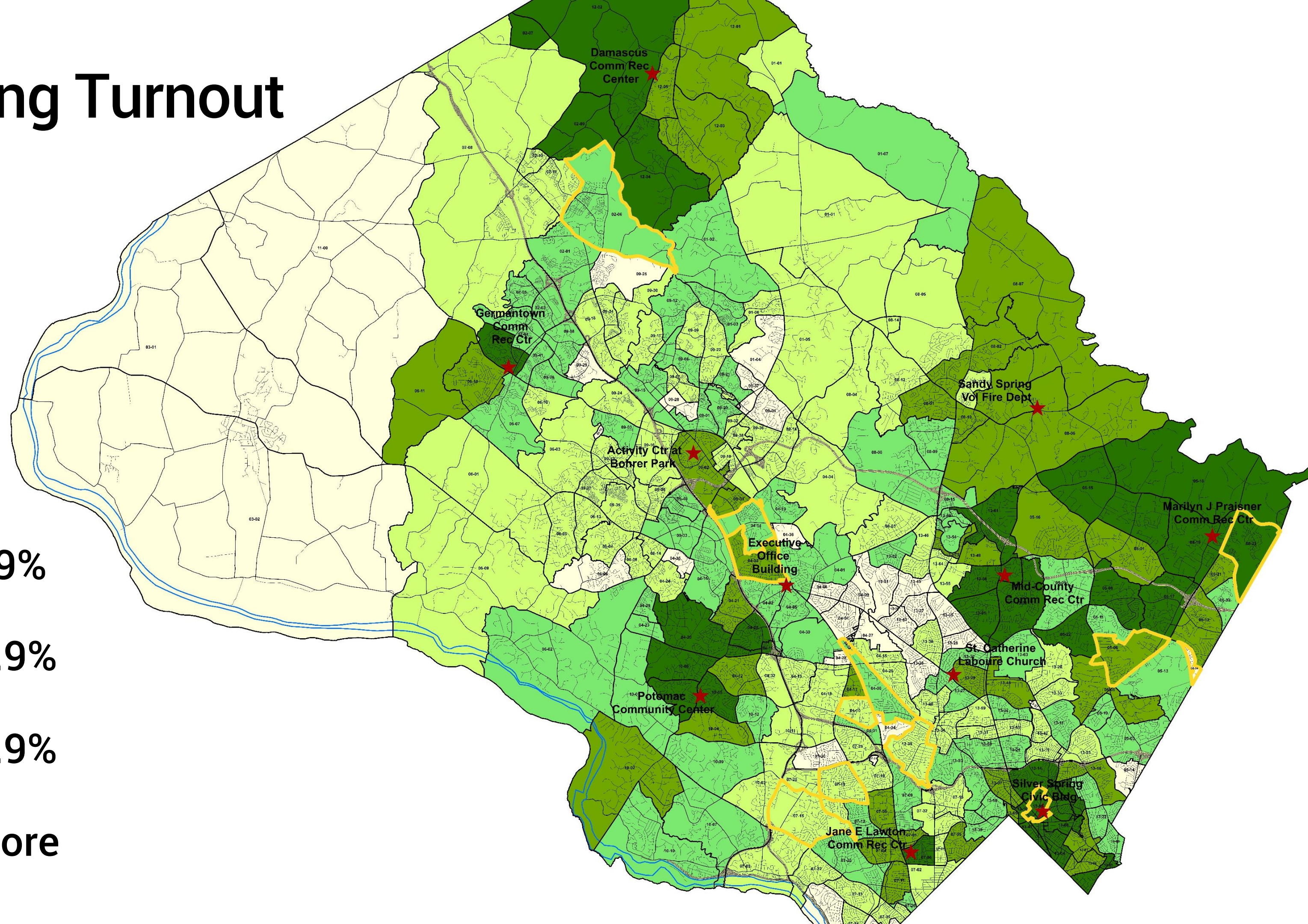
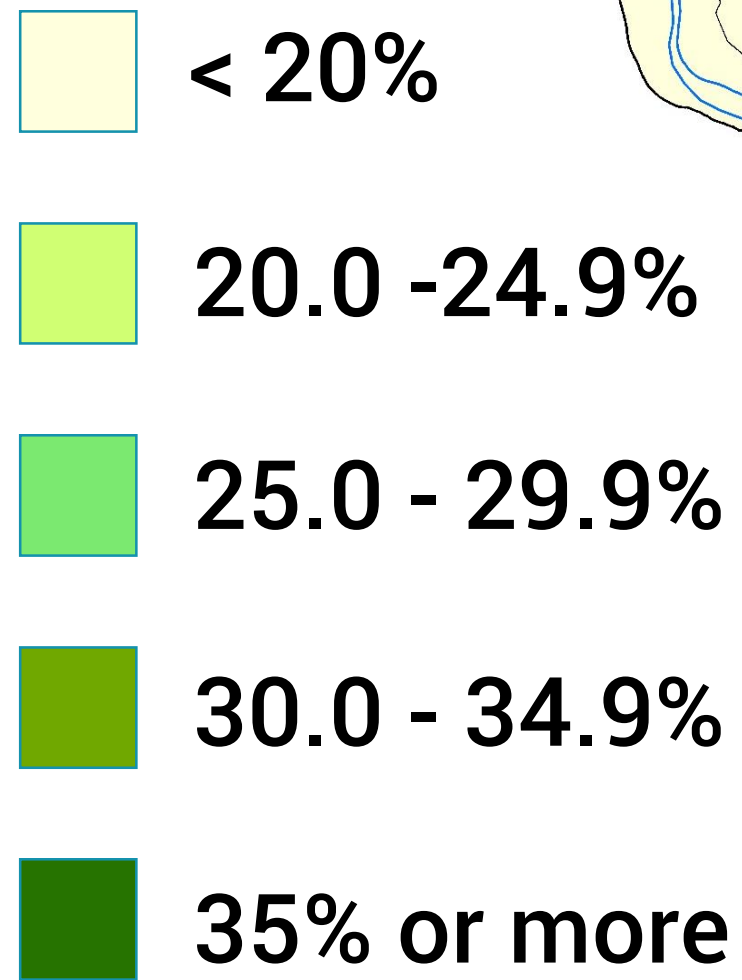


**9% of voters casting ballots voted by mail**

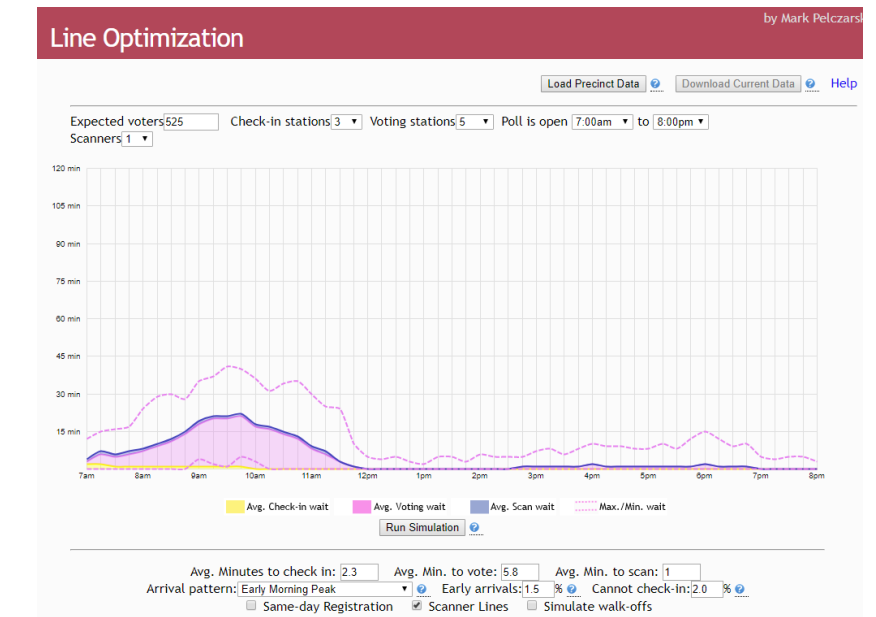


**9 precincts had more than half their voters use early or absentee voting**

# Early Voting Turnout as a % of Actual Voters



# Equipment Allocation



**Utilized MIT VTP's Line Optimization tool to determine equipment based upon expected voter turnout\* and SBE's recommendations**

**\*Formula found at Election Assistance Commission**



# Factors in Allocations

- **Election Day turnout**
- **Percentage of elderly in precinct**
- **Percentage of Section 203 population**
- **Other factors**

# Scanner Allocation

- 3-4 Scanners = 8%
- 2 Scanners = 88%
- 1 Scanner = 4%

**Two polling places had a scanner added on Election Day – 07-19 & 07-23**



An aerial photograph of a city, likely Los Angeles, showing a dense urban landscape with residential areas, commercial buildings, and a major highway interchange. A large, jagged white cutout is positioned in the center of the image, creating a window for text.

# **WAIT TIMES**

2018 GENERAL ELECTION

# Methodology

## How we determine wait times

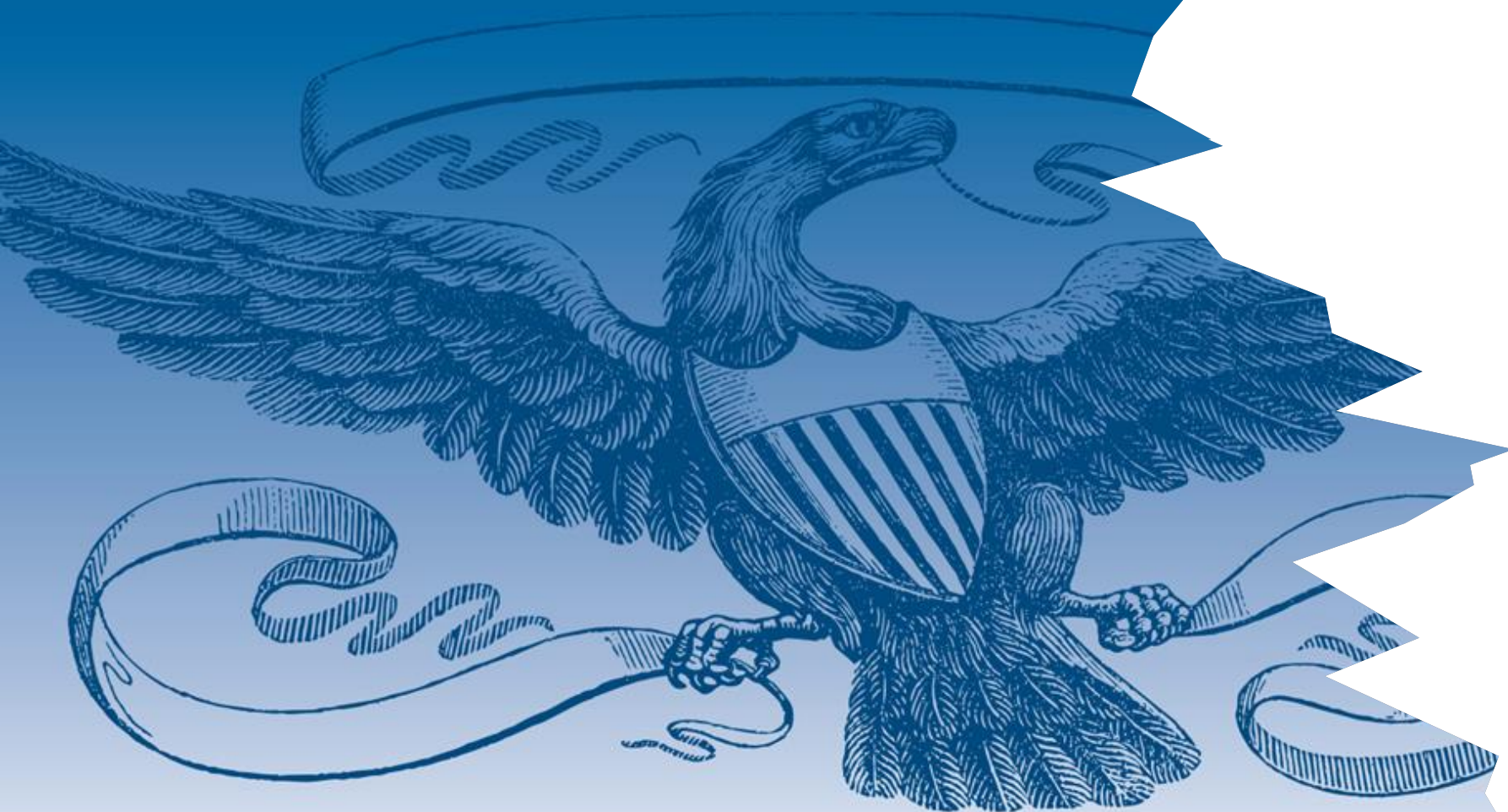
Information from wait time cards reported by voters

Survey of Chief Judges asking questions about wait times and resource allocation

Wait Time = waiting time at all stations  
(check in, ballot distribution, voting booths, and scanners)



The American Voting System  
Report and Recommendations  
of the  
Presidential Commission  
on Election Administration



*“No citizen should have to wait more than 30 minutes to vote; jurisdictions can solve the problem of long lines through a combination of planning... and the efficient allocation of resources.”*

# Wait Times

## Short to no wait for most voters

76% of polling places never exceeded a 30-minute peak wait time on Election Day

The average wait time for a typical voter was approximately 7 minutes with an average peak wait time of 20 minutes across all polling places

A dozen polling places had very long wait times of 1-2 hours at their peak times



# Wait Times Four Comparison Groups

## Moderate Wait Group

45 polling places  
Peak wait: 35-55 minutes

## Short Wait Group

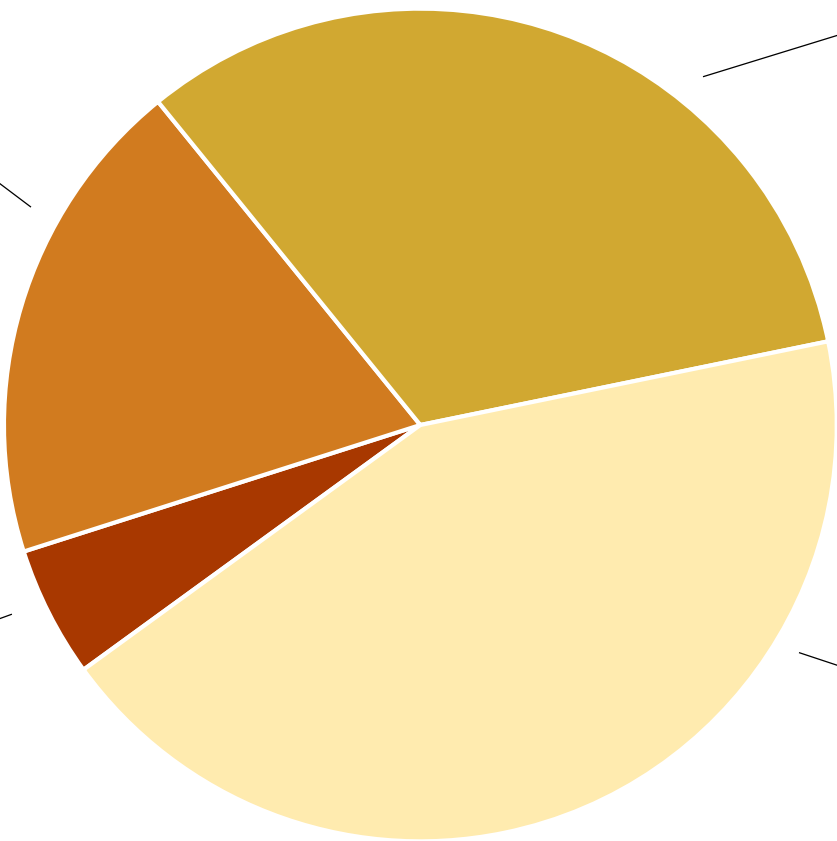
77 polling places  
Peak wait: 20-30 minutes

## Long Wait Group

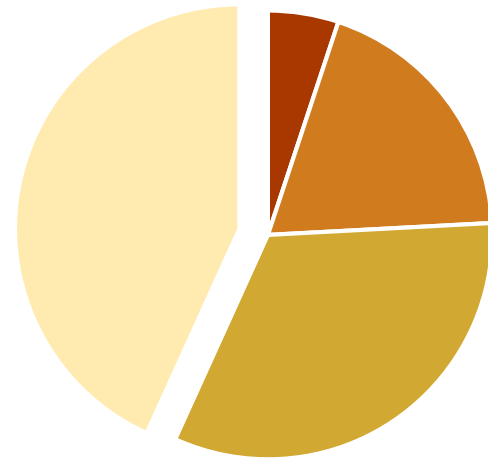
12 polling places  
Peak wait: 60-120 minutes

## No Wait Group

102 polling places  
Peak wait: 15 minutes or less



# No Wait



102 polling places saw little to no wait



**10-15**

MAX



**2**

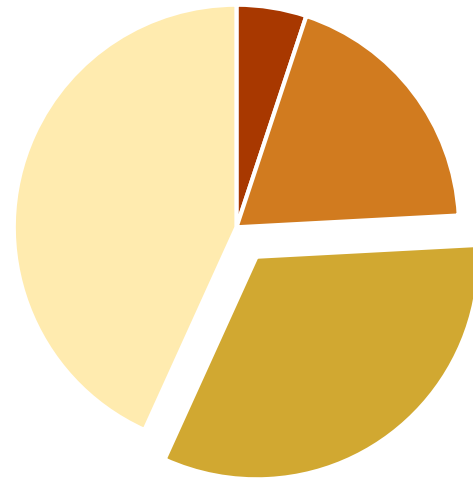
AVERAGE



**896**

VOTERS

# Short Wait



77 polling places peaked at 20-30 minutes



**20-30**

MAX



**5**

AVERAGE

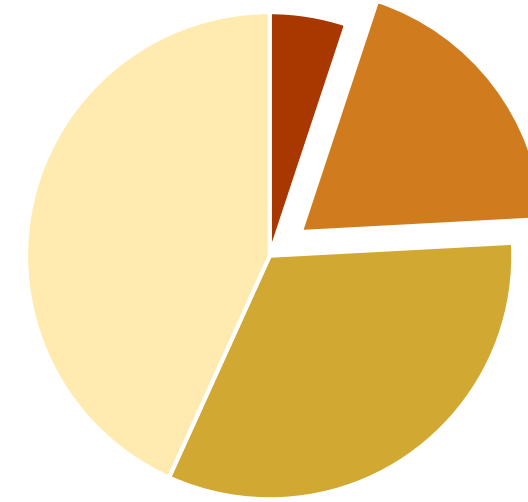


**1,128**

VOTERS



# Moderate Wait



45 polling places waited 35-55 minutes at peak



**35-55**

MAX



**13**

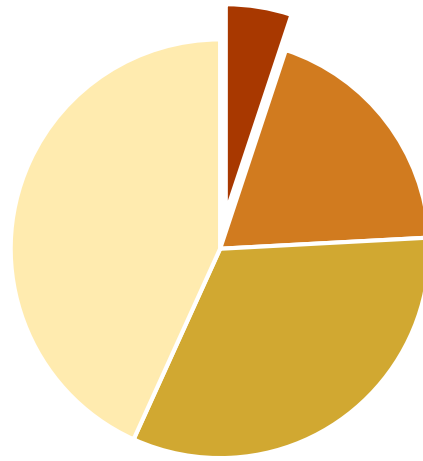
AVERAGE



**1,402**

VOTERS

# Long Wait



12 polling places exceeded an hour wait



**60-120**

MAX



**30**

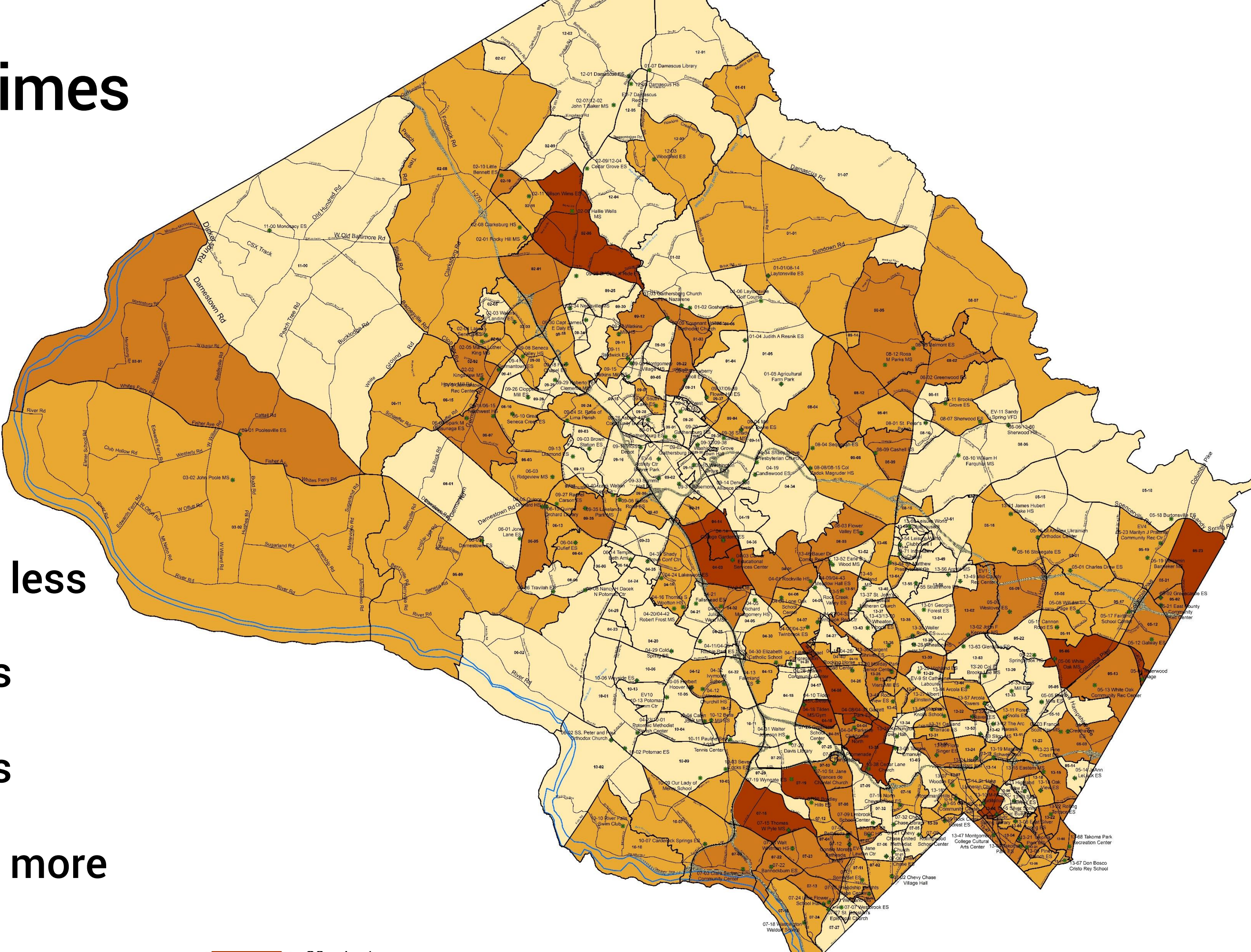
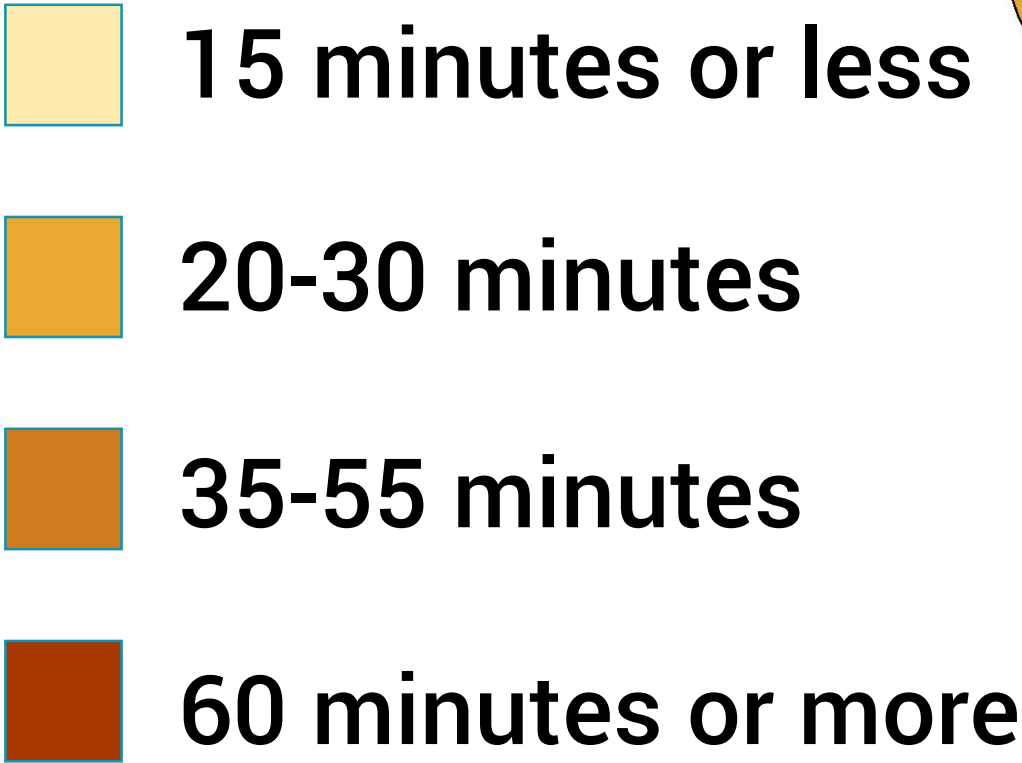
AVERAGE



**1,556**

VOTERS

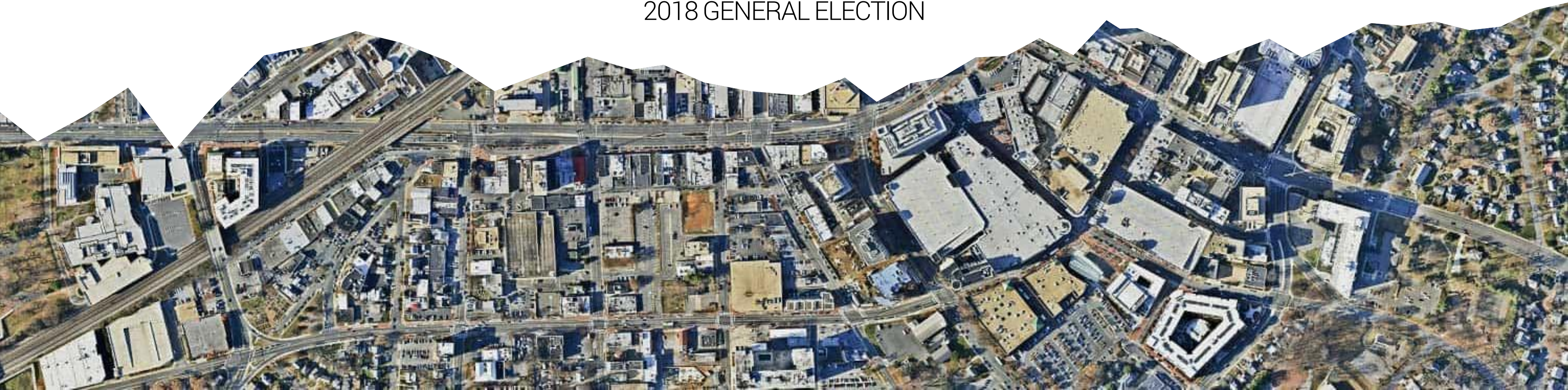
# Peak Wait Times By Precinct





# CONTRIBUTING FACTORS

2018 GENERAL ELECTION



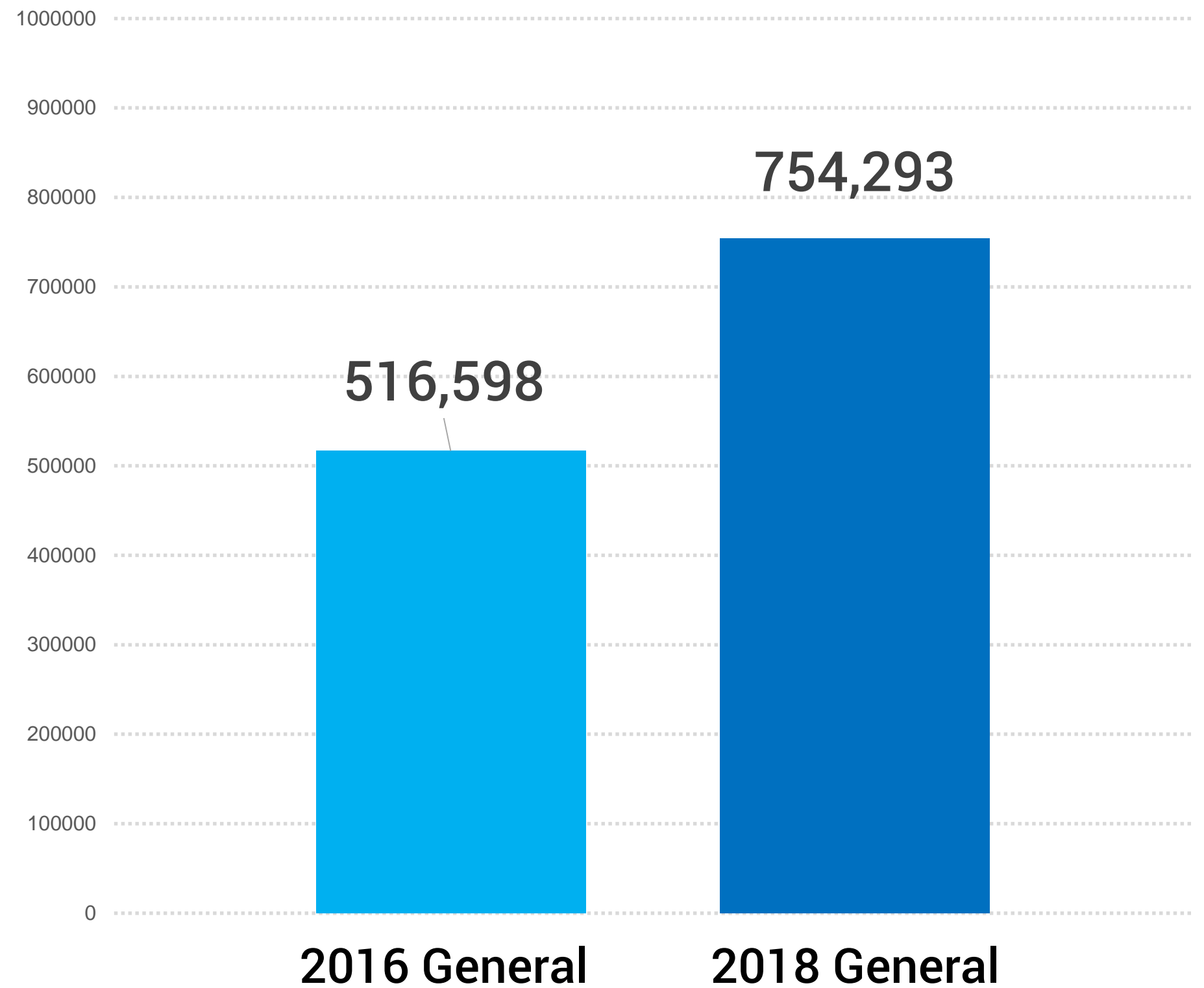


# 3-Card Ballot

- A longer ballot on three pages added pressure on workers and equipment
- Three pages added valuable seconds to each voter's scanning time
- Increases likelihood of scanner jams



# # of Cards – Election Day





# Scanners and Voting Booths

- **Chief Judges reported wanting more voting booths (72%) and scanners (44%)**
- **Allocations did meet and often exceeded state requirements**



# Equipment Breakdowns

- **Scanner jams and errors**
- **Backup scanners were not available (all in use)**
- **Humidity increased jam frequency**
- **Chief Judges understanding of the bypass procedure**
- **Response time was slow**



# Slow Process at Scanning Units

- **Frequent corrections meant repeat line trips**
- **Blank pages present a failsafe message**
- **Scanner judge instructions too slow and not clear enough**



# Larger Voter Turnout and Heavier Peaks

## # of Actual Voters by Group

Long group	1,556
Moderate group	1,402
Short group	1,128
No wait group	895



# Election Worker Staffing

## Election Workers by Group

Long group	11.8
Moderate group	11.5
Short group	10.8
No wait group	11.0



# Size of Polling Places

**Most polling places had sufficient space, but 20% of Chief Judges reported needing more room**



# Voting Behavior

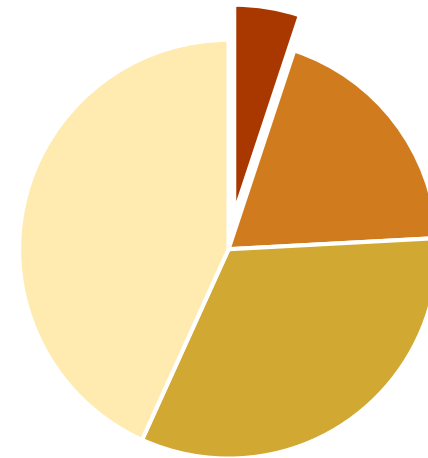
- The arrival patterns and voting choices of voters will continue to be difficult to predict with more voting options
- Factors like weather and voter excitement can impact the timing of voting



# Non-factors

- Chief Judges reported largely having sufficient pollbooks (83%)
- Early Voting turnout did not impact Election Day lines significantly aside from a few exceptions

# Explanations for Long Wait Group



# Locations in Long Wait Group




02-06	Hallie Wells Middle School
04-03	Carver Educational Services Center
04-08/33	Garrett Park Elementary School
04-10	Tilden Middle School
04-14	College Gardens Middle School
05-04	Riderwood Village
05-06	White Oak Middle School
05-23	Praisner Community Recreation Center
07-15	Thomas W. Pyle Middle School
07-19	Wyngate Elementary School
13-05	Silver Spring Library
13-38	Cedar Lane Unitarian Universalist Church

# More than 150 provisional ballots



02-06	Hallie Wells Middle School
04-03	Carver Educational Services Center
04-08/33	Garrett Park Elementary School
04-10	Tilden Middle School
04-14	College Gardens Middle School
05-04	Riderwood Village
05-06	White Oak Middle School
<b>05-23</b>	<b>Praisner Community Recreation Center</b>
07-15	Thomas W. Pyle Middle School
07-19	Wyngate Elementary School
<b>13-05</b>	<b>Silver Spring Library</b>
13-38	Cedar Lane Unitarian Universalist Church

# More than 4,000 registered voters



02-06	Hallie Wells Middle School
04-03	Carver Educational Services Center
04-08/33	Garrett Park Elementary School
04-10	Tilden Middle School
04-14	College Gardens Elementary School
05-04	Riderwood Village
05-06	White Oak Middle School
05-23	Praisner Community Recreation Center
07-15	Thomas W. Pyle Middle School
07-19	Wyngate Elementary School
13-05	Silver Spring Library
13-38	Cedar Lane Unitarian Universalist Church

# Over 75% of voters voting on Election Day



02-06	Hallie Wells Middle School
04-03	Carver Educational Services Center
04-08/33	Garrett Park Elementary School
04-10	Tilden Middle School
04-14	College Gardens Middle School
<b>05-04</b>	<b>Riderwood Village</b>
05-06	White Oak Middle School
05-23	Praisner Community Recreation Center
07-15	Thomas W. Pyle Middle School
07-19	Wyngate Elementary School
13-05	Silver Spring Library
13-38	Cedar Lane Unitarian Universalist Church

# Voter-to-worker ratio of 150 or more

02-06

Hallie Wells Middle School

04-03

Carver Educational Services Center

**04-08/33**

**Garrett Park Elementary School**

04-10

Tilden Middle School

**04-14**

**College Gardens Middle School**

05-04

Riderwood Village

05-06

White Oak Middle School

05-23

Praisner Community Recreation Center

07-15

Thomas W. Pyle Middle School

**07-19**

**Wyngate Elementary School**

13-05

Silver Spring Library

**13-38**

**Cedar Lane Unitarian Universalist Church**



# Significant/repeated equipment malfunctions



02-06	Hallie Wells Middle School
04-03	Carver Educational Services Center
<b>04-08/33</b>	<b>Garrett Park Elementary School</b>
<b>04-10</b>	<b>Tilden Middle School</b>
<b>04-14</b>	<b>College Gardens Middle School</b>
05-04	Riderwood Village
05-06	White Oak Middle School
<b>05-23</b>	<b>Praisner Community Recreation Center</b>
07-15	Thomas W. Pyle Middle School
07-19	Wyngate Elementary School
<b>13-05</b>	<b>Silver Spring Library</b>
13-38	Cedar Lane Unitarian Universalist Church

# Reported needing additional scanners



02-06	Hallie Wells Middle School
04-03	Carver Educational Services Center
04-08/33	Garrett Park Elementary School
04-10	Tilden Middle School
04-14	College Gardens Middle School
05-04	Riderwood Village
05-06	White Oak Middle School
05-23	Praisner Community Recreation Center
07-15	Thomas W. Pyle Middle School
07-19	Wyngate Elementary School
13-05	Silver Spring Library
13-38	Cedar Lane Unitarian Universalist Church

# Very large surge of voters late in the day



02-06	Hallie Wells Middle School
04-03	Carver Educational Services Center
04-08/33	Garrett Park Elementary School
04-10	Tilden Middle School
04-14	College Gardens Middle School
05-04	Riderwood Village
<b>05-06</b>	<b>White Oak Middle School</b>
<b>05-23</b>	<b>Praisner Community Recreation Center</b>
07-15	Thomas W. Pyle Middle School
07-19	Wyngate Elementary School
<b>13-05</b>	<b>Silver Spring Library</b>
13-38	Cedar Lane Unitarian Universalist Church

# Very large surge of voters early in the day



02-06

Hallie Wells Middle School

04-03

Carver Educational Services Center

04-08/33

Garrett Park Elementary School

04-10

Tilden Middle School

04-14

College Gardens Middle School

05-04

Riderwood Village

05-06

White Oak Middle School

05-23

Praisner Community Recreation Center

07-15

Thomas W. Pyle Middle School

07-19

Wyngate Elementary School

13-05

Silver Spring Library

13-38

Cedar Lane Unitarian Universalist Church

Precinct

005-23

007-19

013-05

004-14

005-04

004-08/33

005-06

004

Praisner RCC

Wyngate ES\*\*

SS Library

College Gardens

Riderwood Village

Garrett Pk ES

White Oak MS

Carver ESC

Pv MS

Longest  
Wait Time

Last Ck-in

Last scan

Average W  
Minutes

ballot

120 9:09pm

110 7:59PM

105 9:31PM

90 8:49PM

90 8:01PM

70 8:02PM

9:47PM

8:23PM

9:39PM

9:01PM

8:12PM

8:55PM

9:17PM

9:04PM

50 Y

40 N

43 N

20 Y

35 Y

25 N/Y

23 N

39 Y

35 N

15 N

2 N

1679

1947

1380

1393

947

1817

1394

1574

1498

1841

11

1281

1951

895

1376

97

1

11

11

9

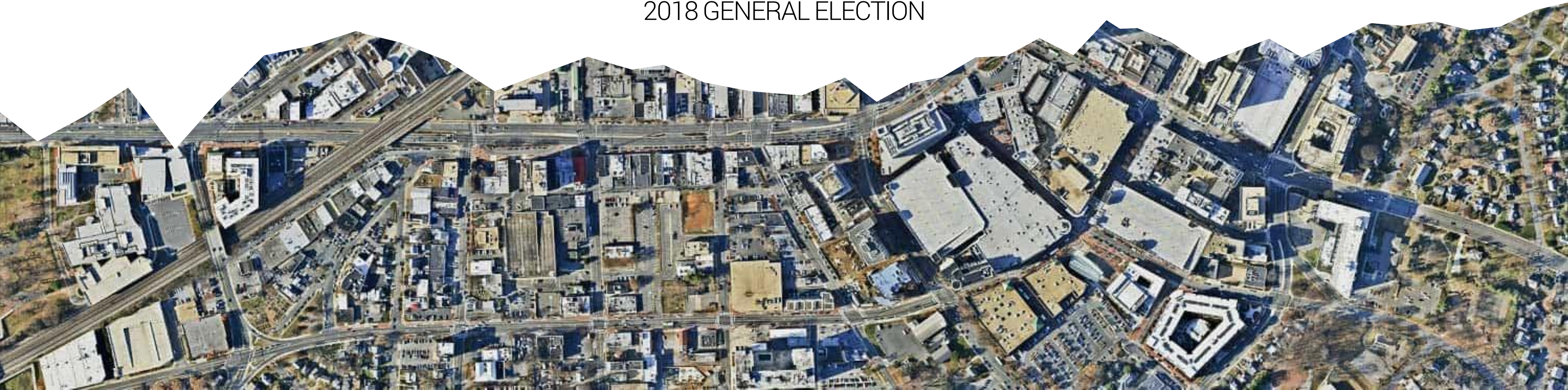
9

Detailed Data Provided



# STAFF RECOMMENDATIONS

2018 GENERAL ELECTION



# Staff Recommendations

## Acquire Additional Scanners

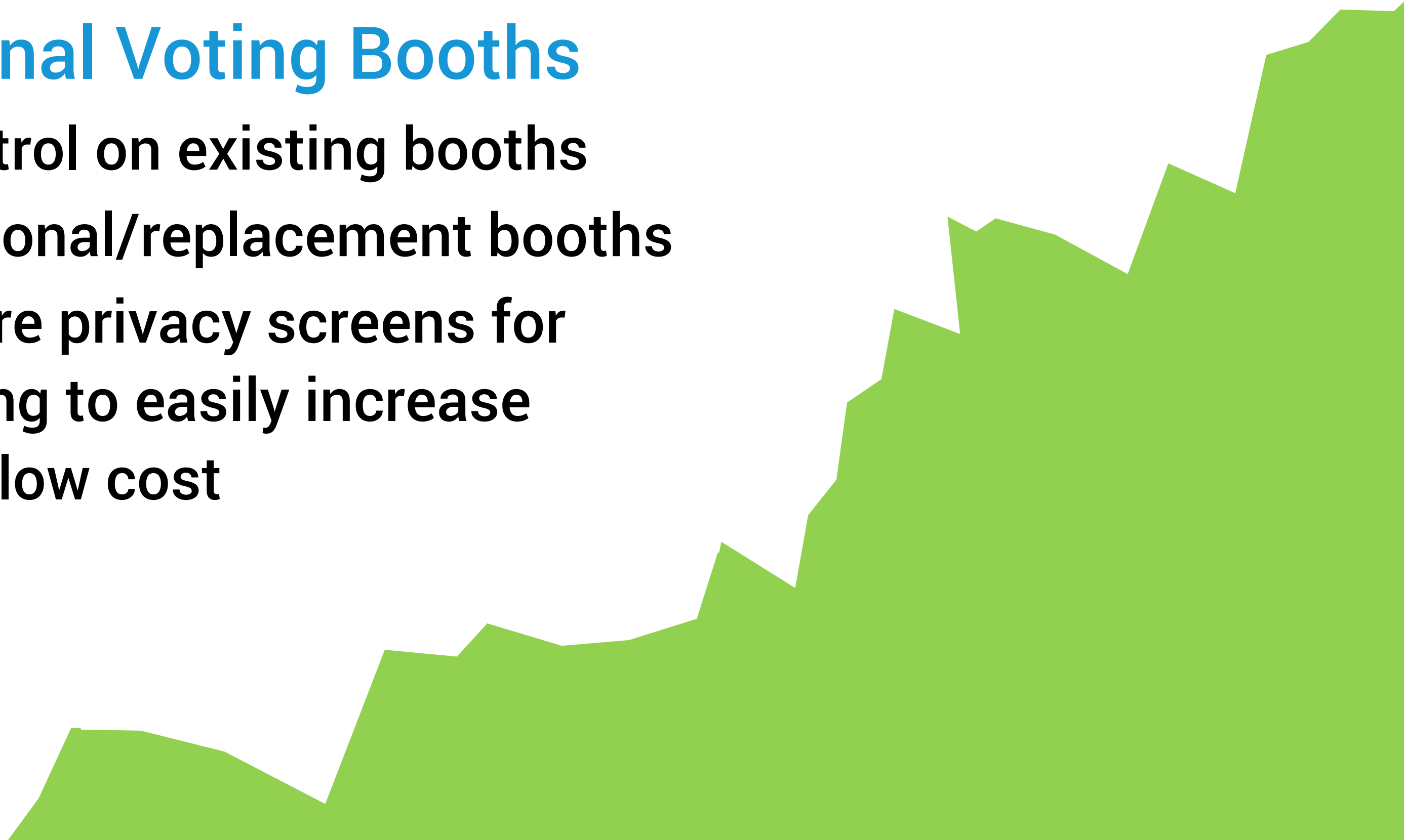
- Additional scanners could reduce lines on Election Day and may be needed if a 3-page ballot arises again
- Scanners needed in reserve in case of malfunction



# Staff Recommendations

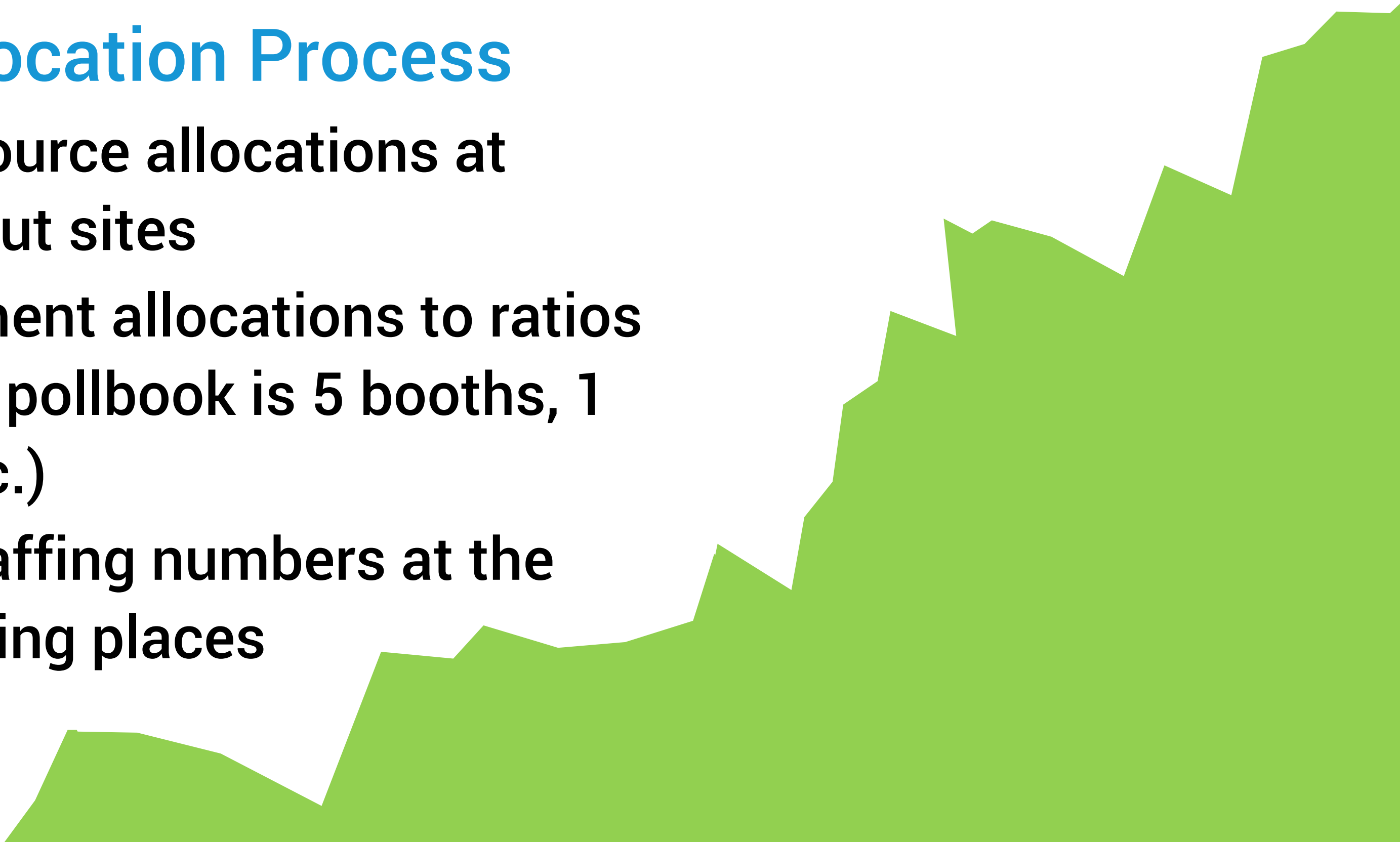
## Add Additional Voting Booths

- Quality control on existing booths
- Order additional/replacement booths
- Provide more privacy screens for seated voting to easily increase capacity at low cost



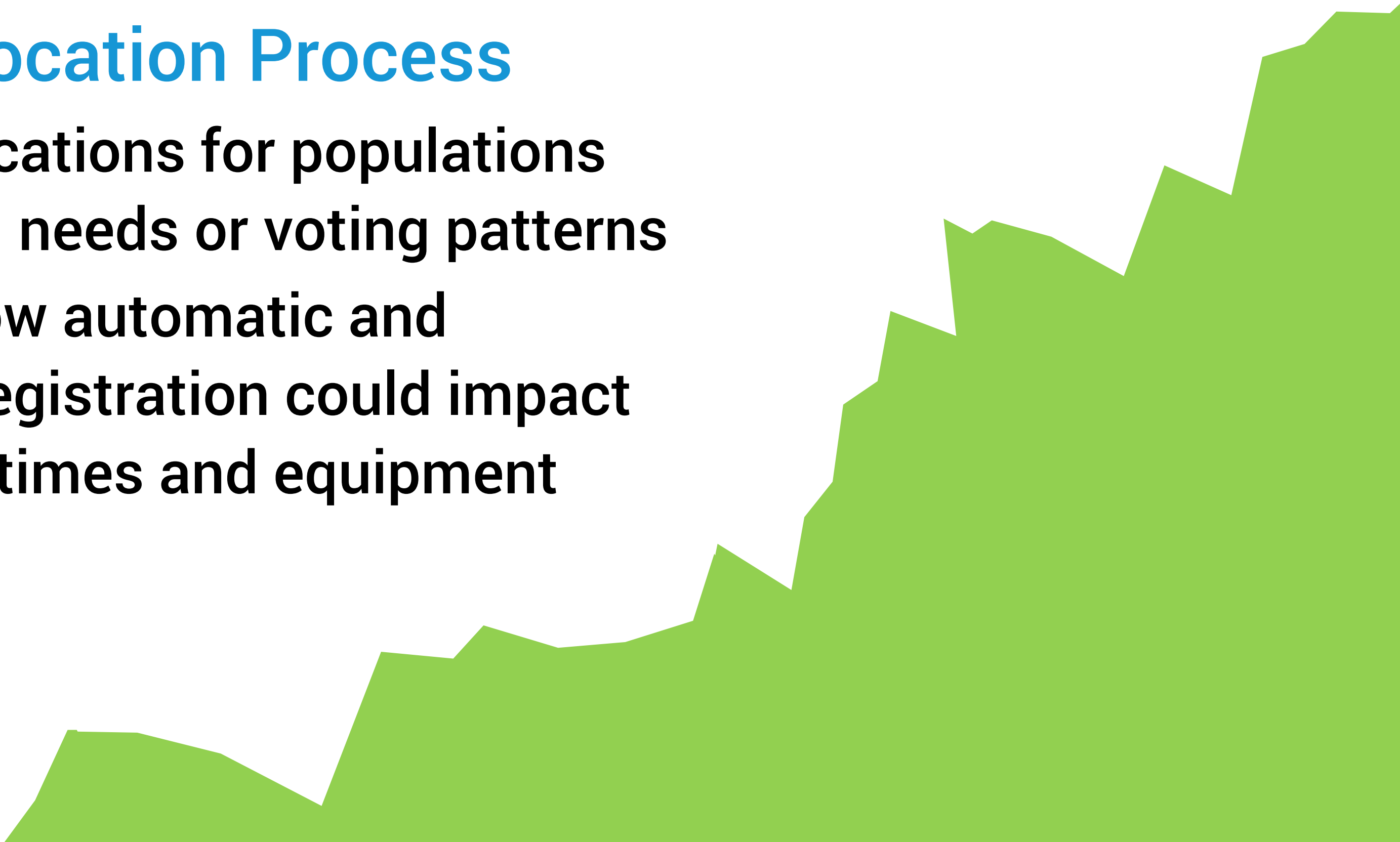
# Staff Recommendations

## Improve Allocation Process

- Expand resource allocations at heavy turnout sites
  - Link equipment allocations to ratios (e.g. – each pollbook is 5 booths, 1 scanner, etc.)
  - Increase staffing numbers at the busiest polling places
- 


# Staff Recommendations

## Improve Allocation Process

- Update allocations for populations with special needs or voting patterns
  - Factor in how automatic and same-day registration could impact processing times and equipment needs
- 


# Staff Recommendations

## Improve Tech Support Network

- Expand technical training for roamers already in the field
  - Create an IT rover network to more quickly respond to reported issues
  - Expand use of county IT staff for cost effectiveness
- 

# Staff Recommendations

## Examine Voting Rooms

- Check if alternative facility options might provide a better voting room
  - Use alternative layouts to use space effectively
  - Make sure layouts are maximizing space usage
- 

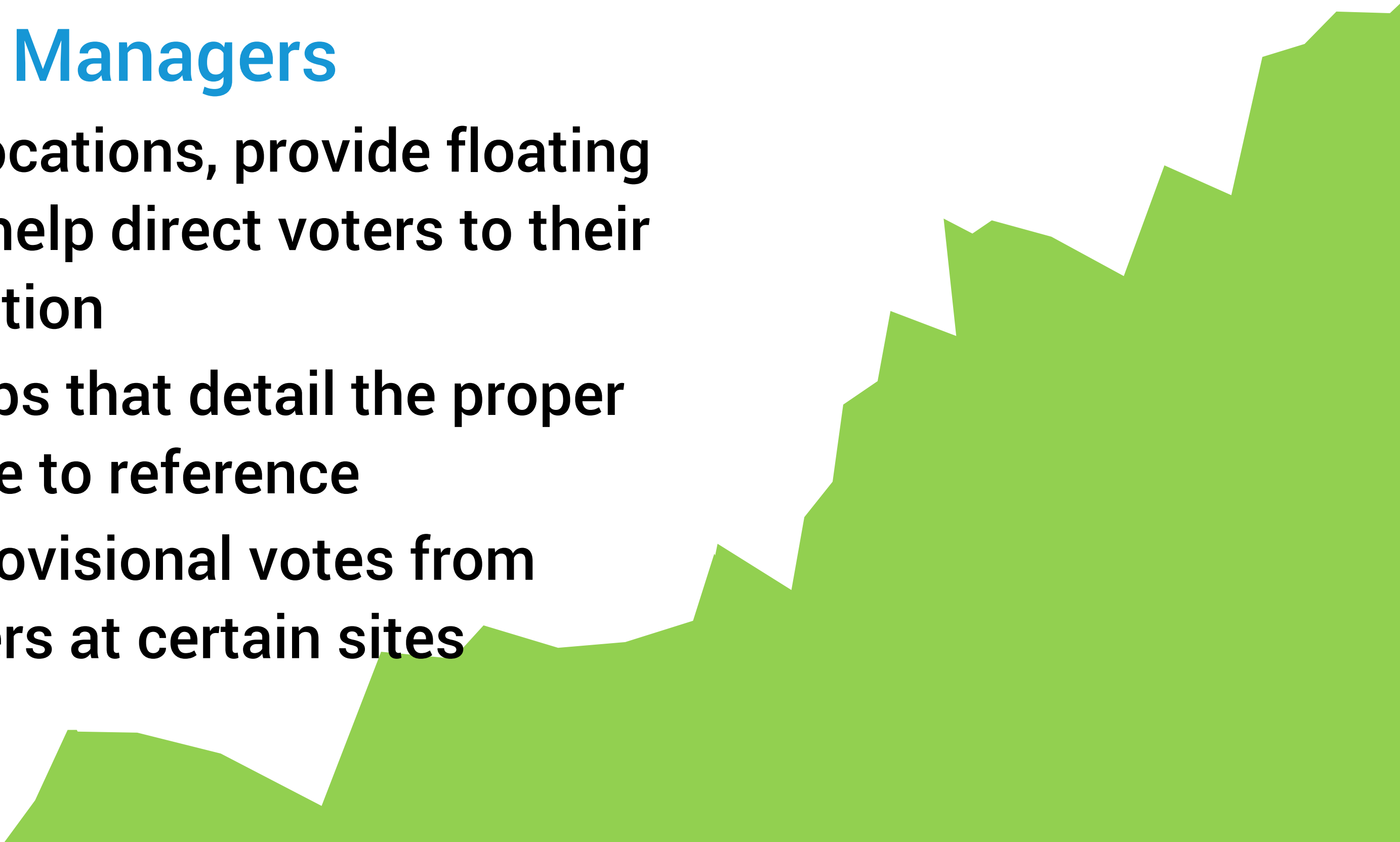
# Staff Recommendations

## Add and Update Signage

- Reduce election worker traffic control duties by adding large signs with numbers (e.g. – “1 – Check In Here”) so voters know where to go next in the polling place
- Numbers are a universal language

# Staff Recommendations

## Assign Line Managers

- At certain locations, provide floating workers to help direct voters to their correct location
  - Provide maps that detail the proper polling place to reference
  - Separate provisional votes from regular voters at certain sites
- 



Montgomery County Board of Elections  
Report and Analysis by Eric Olsen, Operations Specialist  
Contributions by Louise Warner, Janet Ross, Jessica White, Leslie  
Woods, Jessica Jones, and Deborah Hamer  
January 28, 2019